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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/549,807	07/19/2006	Soren P Jensen	P08742US00/DEJ	7885

881 7590 06/17/2009
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EXAMINER

LAUX, JESSICA L

ART UNIT	PAPER NUMBER
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3635

MAIL DATE	DELIVERY MODE
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06/17/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/549,807	Applicant(s) JENSEN, SOREN P	
	Examiner JESSICA LAUX	Art Unit 3635	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 September 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 September 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>7/19/2006</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the “fitting out”; the transportation carriage; and the connecting by welding must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

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The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-3,5-8,15,17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1, 8 recite the limitations "at least the wider sections". There is insufficient antecedent basis for this limitation in the claim.

Regarding claims 1, 2,7,8,15,17, the terms "e.g.", "i.e." or "etc." renders the claims indefinite because it is unclear whether the limitation(s) following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

Regarding claim 3, the use of the terms "shell segments" being defined by "segments" is confusing as it is unclear what "segments" comprise the shell segments as the shell segments cannot be comprised of themselves as claimed.

Regarding claim 5, the term "preferably" renders the claims indefinite because it is unclear whether the limitation(s) following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

Regarding claim 6, the terms "segment" and "sections" should correctly be "shell segments", "tower sections" as there is lack of antecedent basis in the claim for the term "segments".

Regarding claims 7, 15, it is unclear what is meant by the term "fitting out", rendering the claims indefinite.

All claims will be examined as best understood in light of the above 112 rejections.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fons (6715243).

Claims 1, 3. Fons discloses a steel tower, comprising a number of cylindrical or tapered tower sections (2), subdivided into two or more elongated shell segments (3), which combine into a complete tower section by means of vertical flanges (4 or as seen in figure 2) tightened together by bolts (6), said shells being also provided with upper and lower horizontal flanges (5, or as seen in figure 2), respectively, to allow interconnection of tower sections one on top of the other (as seen in the figures).

Fons does not disclose that the tower is made of steel but rather disclose Aluminum. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the material to be a steel for its weather resistance properties, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. . *In re Leshin*, 125 USPQ 416.

It should be noted that claim 3 is considered a product-by-process claim. The patentability of the product does not depend on its method of production. Determination of patentability is based on the product itself. See MPEP 2113. If the product-by-

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process claim is the same as or obvious from a product of the same prior art, the claim is unpatentable even though the prior product was made by a different process. *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed.Cir.1985). Therefore the process of welding together segments to make a shell segment does not patentably distinguish over Fons as the resulting structure is the same as that disclosed by Fons.

Claim 2. A steel tower according to claim 1, wherein at least one of the tower sections is being divided into three segments (3) of essentially equal arc length, i.e. 120° each (as seen in the figures).

Claim 6. A steel tower according to claim 1, wherein the vertical and/or horizontal joints between segments and sections, respectively, are being covered by inserting a filler material and/or a filler element (20).

Claims 4-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fons (6715243) in view of Shea (1765946).

Claim 4. Fons discloses a steel tower according to claim 1, wherein the vertical flanges are welded (as seen at 12, 13) onto the shell segments, but does not disclose the use of a spacer bar between the flanges.

Shea discloses a steel tower made up panels with flanges where the flanges are connected with a spacer bar (37) between.

At the time the invention was made it would have been obvious to one of ordinary skill in the art to modify the flange connection of Fons to have a design and mode including a spacer bar as disclosed by Shea to create a secure and tight waterproof connection.

Claim 5. A steel tower according to claim 1, wherein said spacer bar is provided with throughholes matching the holes in the flanges (as seen in figure 6).

Claim 7. A steel tower according to any of the preceding claims claim 1, wherein a shell segment is provided with fitting out (as seen at the joint connection of figure 2).

Claims 8-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shea (1765946).

Claims 8,9,15. Shea discloses a method of building a large size, cylindrical or tapered tower steel tower sections (18,38) from prefabricated shell segments divided into segments along vertical lines and interconnected by flanges (13,20) provided along the edges thereof, comprising the steps of:

a) providing two or more tower shell segments (as seen in the figures) from a rolled steel plate (page 1, lines 1-6) having the required radius of curvature, said shells forming in unison a complete circumferential tower section that constitutes a 360° shell (as seen in the figures),

b) providing each shell segment with vertical and horizontal connecting flanges (13, 20) along free edges thereof,

e) mounting the shell segments together along their vertical flanges to provide one or more tower sections by connecting means (as seen in the figures),

f) mounting tower sections on top of each other by connecting them along their opposing horizontal flanges by connecting means (as seen in the figure).

Shea does not expressly disclose mounting one or more shell segments on a transportation carriage or supporting frame, and transporting said supported segments

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to the building site. However, it is notoriously common and well known to manufacture components at an off site manufacturing facility and then transporting the components to the desired location for installation. Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to include the method steps of mounting one or more shell segments on a transportation carriage or supporting frame, and transporting said supported segments to the building site to.

Claim 10. Method according to claim 8, wherein previous to step

a), an optional number of plates in the form of elongated shell segments, are being welded together along their abutting horizontal edges to establish larger lengths of tower shell. Shea disclose welding sections together but does not disclose welding sections together to create larger sections for assembly. However it would have been obvious to one of ordinary skill in the art to include the method steps of creating larger sections For assembly to improve installation efficiency and production as the segments are installed one on top of the other and that would require lifting (where it is more efficient to lift more at one time than to lift each section individually).

Claim 11. Method according to claim 8, wherein the flanges in step b) are being welded in a position pointing towards the center of the tower (as seen in figure 4).

Claim 12. Method according claim 8, wherein the vertical flanges are being welded in such distance from the edge of the respective shell that a spacer bar (29, 37) could be sandwiched between the flanges as they are tightened together.

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Claim 13. Method according to claim 12, wherein a vertical joint visible after interconnecting two neighbor shells via an intermediary spacer bar is being covered by inserting a filler material and/or a filler element (31, as seen in figure 5)).

Claim 14. Method according to claim 8, wherein interconnection of horizontal flanges is performed after offsetting the vertical division lines of neighbor tower sections (as seen in the figures and noted in the disclosure).

Claim 16. Shea discloses the method according to claim 8, but does not disclose that all parts of the tower structure are being surface treated in the workshop before being transported to the building site. However, it is notoriously common and well known to surface treat metals for outside installations and to do so in a workshop before assembly and installation as it provides for more accurate treatment. Therefore it would have been obvious at the time the invention was made to treat the steel of the Shea to provide better weather resistance and welding surfaces.

Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over French (20020064434).

Claim 17. French discloses a transportation carriage wherein said carriage consists of a support frame (14) for transportation thereof, with a number of supports (30) for carrying a shell segment length ready for transportation, said support frame being movable by means of wheels and being hauled by a truck (generally at 16).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JESSICA LAUX whose telephone number is (571)272-

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8228. The examiner can normally be reached on Monday thru Thursday, 9:00am to 5:00pm (est).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Chilcot can be reached on 571-272-6777. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Richard E. Chilcot, Jr./
Supervisory Patent Examiner, Art Unit 3635

/J. L./
Examiner, Art Unit 3635